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RESEARCH ARTICLE

Awareness of breathing as a way to enhance the sense of coherence: Patients' experiences in psychomotor physiotherapy.

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Abstract

*Background and purpose***:**

The aim of this study was to clarify former patients' experience while undergoing therapeutic treatment in Norwegian Psychomotor Physiotherapy (NPMP).

Subjects and Methods:

A qualitative approach based on ten in-depth interviews was adopted. The data were analysed with the aid of grounded theory.

Results:

Three categories were identified from the patients' experiences: 1) The realization that their health was at stake, 2) The therapeutic process, 3) Increased self-awareness. During NPMP they realized that when the therapists brought their attention to autonomic reactions, such as changes in their breathing rhythm, they came to a better understanding of what these reactions could mean, thereby increasing their self-understanding.

Discussion and Conclusion:

Focused attention on autonomic reactions, mainly breathing, increased the patients' self-understanding and their sense of coherence (Antonovsky 1987;1996). [1]

Key words

Breathing, Psychomotor Physiotherapy, Psychosomatic Disorders, Musculoskeletal Disorder, Salutogenic Perspectives [2].

Introduction

The concept "sense of coherence", was defined by the late Prof. Aaron Antonovsky (1987:18) as "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement". This article will present the 10 former patients' experiences during therapeutic processes in Norwegian Psychomotor Physiotherapy (NPMP). The findings will be discussed in a salutogenic perspective.

Theoretical framework

NPMP was developed in Norway in the 1940s and 1950s by physiotherapist Aadel Bülow-Hansen and psychoanalytical psychiatrist Trygve Braatøy. Braatøy was concerned with how physical and emotional strain affected the body, and invited Bülow-Hansen to use her knowledge

[1] **Aaron Antonovsky** PhD, (1923 –1994) was an Israeli American sociologist and academician whose work concerned the relationship between stress, health and well-being (Antonovsky, 1987:9).

[2] **Salutogenesis** describes an approach focusing on factors that support human health and well-being, rather than on factors that cause disease. The "salutogenic model" is concerned with the relationship between health, stress and coping (Antonovsky, 1996:13).

to reduce the patients' bodily resistance, thus opening access to emotions in psychoanalytic therapy, primarily by means of relaxation therapy (Bunkan, 2010; Heller, 2007; Totton, 2003).

Bülow-Hansen had realized that relaxation treatment had limited results unless breathing was taken into consideration. She introduced ways of influencing breathing and found that local treatment was not enough; the whole body had to be treated (Thornquist & Bunkan, 1991). The aim of NPMP is to develop flexibility, versatility and stability (Thornquist, 2010). A successful treatment is a process of bodily changes which cannot be divorced from emotional and psychological changes, and becomes possible only when the therapy focuses on the patient's breathing, posture and the musculoskeletal system of the body (Thornquist, 2010). A treatment session may be short, composed only of active exercises in standing, sitting or lying positions, or it may be long and consist only of massage of the recumbent body. Usually, a treatment session lasts one hour and includes both massage and exercises. Treatment is usually given once a week or once a fortnight (Thornquist & Bunkan, 1991). Indications for NPMP are mainly strain, functional disturbances in the musculoskeletal system and psychosomatic diseases. Patients, who have psychiatric diagnoses, need an adapted kind of NPMP (Thornquist & Bunkan, 1991).

Breathing exercises are seldom used in NPMP, but the patient's breathing during massage and exercises is a guideline for the intensity of the therapy (Bunkan, 2010), allowing the therapist to adjust continually to the patient's reactions (Ekerholt & Bergland, 2008; Thornquist & Bunkan 1991). The aim in NPMP is to release respiration, through an interaction between breathing, musculature and emotions (Thornquist & Bunkan, 1991). The therapy is mostly individual, but therapeutic group sessions are also given.

Breathing is one of the physiological processes altered by emotions, also shown in everyday speech expressions such as "breathtaking", "to be breathless with surprise" or "to breathe freely

again" (Boiten, Frijda & Wientjes, 1994: 103). Gilbert (1999: 97) cites Reich (1973) that when his patients could express strong feelings such as grief or rage, this usually led to fuller, freer breathing and a corresponding sense of relief". Pfeffer (1978:48) cites Darwin (1872) talking about fear and breathing:

> "Men have endeavoured to escape from danger by headlong flight or by violently fighting; and such great exertions will cause the heart to beat rapidly, the breathing to be hurried, the chest to heave, and the nostrils to flare. Now, whenever the emotion of fear is strongly felt, the same results tend to reappear, through the force of inheritance and association."

Early research discriminated between the different breathing patterns experienced by patients suffering from neurosis and by those suffering from conversion hysteria (Pfeffer, 1978). The former group breathed rapidly and shallowly, showing an irregularity of the breathing level, depth and rate, while the second group complained of an inability to get enough air and a sense of oppression and suffocation.

Homma and Masaoka (2008) state that autonomic breathing is not only controlled by metabolic demands, but also constantly responds to changes in emotions, such as sadness, happiness, anxiety or fear. Respiratory rate increases even before we are aware of the emotional feelings. During the feeling of anticipatory anxiety, both respiratory rate (Homma & Masaoka, 2008), and bodily arousal increases (Brodal, 2007). If this arousal becomes persistent, body structures might change, decreasing both flexibility and stability, so that somatic pain might be perceived, and the person might feel uneasy and stressed (Thornquist & Bunkan1991; Thornquist, 2010).

One way of bringing theory to bear on the concept of body awareness is through the philosophy of phenomenology. This philosophy has greatly influenced NPMP (Ekerholt, Schau &

Mathismoen, 2010) as well as the field of body psychotherapy (Reynolds, 2009). Phenomenology provides a way of distinguishing between the immediate experience of illness and the conceptualization of the illness as a state of disease (Toombs, 2001), and for the possibility of reflecting on the experience. Toombs (2001) states the distinction between "the body-as-experienced" and the body as the object of scientific inquiry.

From a neurological point of view, Damasio (1999) argues that attention must be focused on what is happening in the body, so the ownership of one's body, which may be hidden, can be made clear. Damasio claims that "if the images have the perspective of this body I now feel, then these images are in my body – they are mine" (Damasio, 1999:183).

Previous research on breathing in NPMP

There has been some quantitative research regarding breathing in NPMP. Bunkan, Opjordsmoen, Moen, Ljunggren & Friis (1999) stated that patients with rigid breathing, unable to adjust to movement and positions, are considered to be more seriously ill than patients with adaptable breathing. Kvåle, Backer Johnsen & Ljunggren (2002) concluded that breathing seems to be an important factor when screening and planning treatment for patients with musculoskeletal problems. Ekerholt & Bergland (2008) have published a qualitative study that explored how former patients had experienced their breathing during therapeutic processes with NPMP and how this had improved the therapeutic sessions.

Purpose

The purpose of this study is to explore significant experiences and bodily functions of the patients undergoing therapeutic processes with Norwegian Psychomotor Physiotherapy.

Material

This article is based on the study "Psychomotor Physiotherapy – Patients' Experiences: Intervention and Mutual Interaction". Parts of the study have previously been published in three articles (Ekerholt & Bergland, 2004; 2006; 2008).

In the study ten former patients (nine women and one man) were asked to discuss their experiences with NPMP. They had all suffered from psychosomatic or musculoskeletal disorders, and had self-reported complaints of anxiety (8), depression (4), sleeping disorders (5) and suicidal thoughts (2). Their treatment had been completed at least 3 months prior to the interviews, so no interference with any ongoing therapy would occur.

The method used was that of open, in-depth qualitative interviews. The interviews were conducted by the author in her office. The interviewer was an experienced physiotherapist, who has carried out clinical work with NPMP for ten years, followed by ten years of teaching this branch of physiotherapy in Scandinavia. The interviewer had no previous acquaintance with or connection with the persons in the study. The average length of each interview was 1½ hours. All the interviews were taped. The study was approved by the Regional Committee of Ethics.

The main items in the interviews were:

- *What are your experiences and thoughts about your treatment process in psychomotor physiotherapy?*
- *Can you remember any particular bodily experiences or changes in connection with the treatment process?*

Examples of additional questions are '*Would you please describe your experience with a) massage, b) movements and exercises c) therapeutic talk d) changes in your pains and complaints?*

Using a grounded theory approach, data were gathered and interpreted consecutively (Strauss & Corbin, 1996). In the initial phase of the data analysis, all the interviews were transcribed and coded. Each interview was analysed in order to reveal thoughts, ideas and the meaning contained therein, so-called 'open coding'. In open coding, data are broken down into discrete parts, closely examined and compared for similarities and differences. During a further step in the coding process, known as axial coding, data were put together in new ways, making connections between categories and subcategories, thereby linking subcategories around the axis of a main category. It would be too ambitious to claim that any theory was built into this project. However, Strauss and Corbin (1996) point out that if theory building is the goal of the grounded theory approach, findings may be presented as a set of interrelated concepts. The central category represents the main theme of the research, in this case "Awareness of breathing: a way to enhance the sense of coherence" which is the title of this paper.

Results

Three themes will be presented here,

1) *Patients' realization that their health was at stake, 2) The therapeutic process, 3) Increased self-awareness.*

These themes reflect the patients' experiences and understanding of their symptoms and complaints prior to, during and after the therapeutic processes. The quotations are presented in italics, and a quotation from one patient could represent several others, in cases where more than one informant had reported similar experiences.

Patients' realization that their health was at stake

The patients described themselves as persons who had always been "the clever ones", always having the feeling of being forced to fulfil demands, whether expressed or not by themselves or by others.

> *" I was typing on my PC all day - I felt controlled by my boss, I had a feeling of being constantly under surveillance, I sat writing and writing, and finally I could hardly breathe, there was so much pain in my arms, neck and shoulders. My jaws were almost locked; I was breathing in a sort of "tube."*

They described an extraordinary ability to carry on, never being able to relax.

> *"It's a kind of inbred control mechanism, which is constructed so that you don't take in the signals from your body. You have some sort of supervisory agent that tells you what to do. While your body wants to rest, your head says "Definitely not" and the head is the winner."*

The informants had no feeling of mastering their pain or their physical reactions;

> *"When anything unpleasant happened, it used to become an inexorable burden that affected my muscle tissue and my breathing. It expressed itself in physical pain, and there was no getting away from it emotionally either. I didn't know how to handle it."*
>
> *"There's only one thing you can imagine doing – sinking into the sofa and staying there."*

The therapeutic process

The therapeutic process consisted of massage, movements and therapeutic talk. Massage could be either pleasant or painful, but in either case it was seen in connection with breathing:

"The massage could be painful, so I tensed my muscles, then she would stop and say "Let your breath go. That's good, because then you let go of all that tension." I had never learned about that in ordinary physiotherapy."

Movements were an important part of the therapy, both during treatment sessions and as exercises done at home.

"I was to stand and rock up and down, trying to find my centre of gravity. I did that a lot when I wasn't feeling too good. The exercises did something to my breathing patterns, and it became an issue to master this process. This has to do with control, to feel you've got it when you don't really have it."

Movements were used both to increase stability and versatility, and were mostly reported here to increase the feeling of security:

"I had exercises like shifting the centre of gravity, stabilising myself and my breathing; I felt my feet solidly planted on the floor. If your weight is deep-seated, you'll have balance; I felt it very literally. That gave me this sense of being anchored and secure, things stopped floating around, and I could breathe more freely."

Therapeutic talk during the therapeutic sessions was an important part of the therapy.

"She let me talk. If I was at a loss for words, she would just sit very quietly, peering at me, letting me take my time, calmly, just waiting and listening. She gave me time to pick my own words. When somebody sits like that and listens, then the words will turn up. If I am faced with people who say things for me, then there are no words left for me."

A combination of psychotherapy and NPMP proved to be useful for some of the patients.

"I could have got more psychotherapy from her. My life was sort of 'on hold' inside my body. While I went there, more and more stuff surfaced – issues from the whole of my childhood – so I was referred to a psychologist. The psychologist analysed episodes very quickly, entered into situations and analysed. The physiotherapist was more of a listener."

"I don't talk about body and breathing and weight and that sort of thing with the psychologist. Things are separated."

There is no easy way to achieve the sense of control and mastery. The therapeutic process was demanding and needed great attention and endurance.

"You have to be willing to work at it. When you delve into yourself and bump into things that hurt, then you realise that painful emotions have simply been stowed away. Sometimes I felt that I couldn't bear any more of this. If I hadn't had that willpower, I might have given up. It takes a lot …"

During therapy, the informants learned to recognize changes in their breathing patterns; they became aware of bodily sensations and acquired new ways of interpreting them.

"I would start feeling a bit unwell, nauseous – I was afraid to open up; I guess that was the core of the anxiety. That was before I realised that breathing was something that should benefit me and support me – it was me."

Increased self-awareness

During the therapeutic processes, the patients had become more familiar with their somatic reactions.

"It had not even occurred to me that my background might have anything whatsoever to do with my aches and pains. I had loosened up, yet, when anything happened, I got worse again, tensing my shoulders and getting pains in my stomach, getting out of breath: I was reacting with my body."

"Though my aggression is invisible, tension rises in my body, my muscles ache, breathing is hampered. The best indicator of my stress is really the way I breathe and the cramps in my hands, calves and toes."

It is important to note the importance of bodily experiences.

"You can't talk yourself through these experiences. They must simply be felt and experienced through the body. I could never talk myself into feeling my centre of gravity, into trusting my feet, or feeling my own breathing without breathing, breathing consciously."

A new ability to "listen to the body" emerged through therapy, and this ability created an increased sense of control and mastery.

"It was really one of those moments when I felt what breathing really is. My breathing is just simply there; all ready for me and it can give me a lot of good things, just naturally. I relax more and some of that unnecessary tension falls away. It was marvellous when my breathing changed; wonderful to feel that both breathing and body work properly."

The changes that were reported by the patients' had implications both intra- and interpersonally

*"What has been most important for me is that I learned to define my limits by means of my body. **I** draw my line; I see that while **I** want this, **you** want that and I respect what you want, but **you** have to respect what **I** want. I am a completely different person today than I was when I started".*

Discussion

The intention of the study was to get access to patients' experiences relating to the therapeutic processes of NPMP. The results will be discussed in the framework of the concept "sense of coherence", where three kinds of life experiences are important; consistency, the balance between underload and overload and participation in socially valued decision-making (Antonovsky, 1996).

Being "here-and-now" – increasing the sense of comprehensibility and consistency

Comprehensibility in a salutogenic perspective is the extent to which events are perceived as making logical sense, that they are ordered, consistent and structured (Antonovsky, 1987, p 17). When we are healthy, everything "flows", the mood in which we find ourselves does not make itself heard or seen, though it could possibly be felt as a certain form of rhythm, connected to time, to our breathing and to the beating of our hearts (Tombs, 2001).

Pain announces something is wrong with the body. Not the body as an isolated mechanism, but rather as at the heart of all the relationships of the person to the activities, things and people within his/her world (Mazi, 2001). The patients had had numerous occasions when they had been hampered by somatic and mental problems. They were unable to see any connection between their personal history, current lifestyle and actual symptoms and complaints. Becoming more aware of their breathing pattern and more attentive to autonomic reactions was a way to explore their own reactions, both in the therapeutic context as well as in daily life. A salutogenic question is: How can this increased self-understanding help me to move toward better health? How can the challenges be more understandable? (Antonovsky, 1996) The present material shows that bodily reactions started to "make sense". Increased knowledge about how one's body may react, can improve one's way of relating to the world. To realize that one cannot control autonomic

reactions, and that they might be a source of self-awareness, could be fundamental in gaining an increased trust in one's own possibilities and resources.

Damasio (1999) states that breathing is vital as an autonomic function for establishing reflection and cognitive consciousness, and that there must be consciousness if the patient's feelings are to influence them beyond the immediate here and now. To release respiratory and muscular brakes could be equivalent to opening up one's feelings and emotions (Bunkan& Thornquist, 1991), a process which is described as demanding and painful, but necessary and very moving.

The results show that the patients improved their ability to understand their somatic and emotional reactions, becoming able to see the connection between the experiences in the therapy room and their personal histories and current life styles. An increased sense of self-awareness and consistency between previous and actual life events made challenges easier to understand, comprehend and cope with.These experiences fit in with similar reports from other NPMP clinical work, as described by, among others, Råheim (2004); Thornquist (2010); Øien (2010).

Broadening the sense of manageability, improving the balance between underload and overload.

To manage, to cope or to master one's own reactions is a psychological construct that captures perceptions about oneself as a causal agent in one's environment, a characteristic that affects individuals' ability to influence their environment and control important life outcomes (Antonovsky, 1996). Effective coping with stress depends on a good match between the demands of the stressor and the resources utilized. Rather than focusing on the amount of resources or on a single favoured class of resources, it is better to encourage the development of the framework for a stress-coping process (Carpenter & Scott, 1992). The patients had suffered from somatic and emotional disorders, and they had been uncertain of their own strength and ability to fulfil the

demands that were imposed on them. The effects of stress are directly linked to coping (Lazarus & Folkman, 1984). Numerous research reports show that individuals will find themselves feeling more stressed out in uncontrollable situations, and since personal control is a cognitive process, the more one has a sense of personal control, the better the sense of coping ability one will have (Lazarus & Folkman, 1984). To be able to manage challenges also includes the ability to distinguish between what is mine and what belongs to others, to become aware of one's boundaries, being able to see one's own limits. This fits in with the concept of mentalization (Choi-Kain and Gunderson, 2008) as "the capacity to conceive the conscious and non-conscious mental state in oneself and in others". This includes the ability to transform one's own inchoate somatic experiences into increasingly organized images, ideas and words, which can be modified, linked and communicated. During therapy, the patients had learned to "listen to the body", became aware of what this information could contain, and were able to do things that had positive implications. The patients learned ways to cope with stress through relaxation techniques and movements that increased their feeling of stability and grounding. This is in line with clinical findings reported by Levy Berg, Standahl & Bullington (2010), in which they say the patients reported that they had gained confidence in themselves; their sense of balance improved and their symptoms of anxiety diminished.

Antonovsky (1996) states the importance of having sufficient support and information in demanding periods of life to be able to reach a level of self-mastery and self-efficacy. The patients had met therapists who both drew their attention to the somatic reactions during therapy, and also gave time and space for reflection upon these reactions, eencouraging the patients to follow up on feelings as they aroused. This process had led to further feelings, images, expressions and finally insight. They had found the courage to explore painful memories, and

they had experienced being able to conquer discomfort, anxiety and nausea. Issues that had previously been impossible to verbalise could now be expressed in words and concepts. Experiences like this had given the patients self-confidence and faith in their own resources to cope with future challenges. This fits in with what Antonovsky (1996:15) described as "meaningfulness", that is to see the world making sense, facilitating successful coping with stressors.

Broadening the sense of meaning; increasing the ability to participate

'Meaningfulness' is defined as "the extent to which one feels that life make sense emotionally, and the importance of being involved as a participant in the process of shaping one's destiny as well as one daily experiences. In this quotation Antonovsky (1987, p. 18) warns "against too great emphasis on the cognitive aspect in the sense of coherence, the emotional aspect is very important". The sense of coherence is strongly related to perceived health, especially mental health, and seems to be a health-promoting resource, which strengthens resilience and develops a positive subjective state of health (Eriksson & Lindström, 2006).

The therapeutic processes which are presented here were demanding, both in somatic and emotional ways. The patients realized that a cognitive, intellectual approach was not enough; they needed experiences to be rooted and anchored in their somatic, bodily and emotional existence. Toombs (2001) states that the *lived body* is one's own body as experienced by oneself, *as* oneself. One's own body manifests itself to one mainly as the possibility of acting in one's own world. Getting rid of somatic and emotional strain increased the patients' ability and their chance of intra-personal participation. Levy Berg et al. (2010) report similar results – anxiety signals become meaningful signals about life situations instead of fear-provoking attacks. The patients

learned to differentiate and find words for each emotion, and they became aware of the importance of context, seeing themselves as competent parts in an ever-changing social setting, making them more free and relaxed when together with other people.

Fredrickson and Joiner (2002) show how positive emotions broaden people's thought–action repertoires, encouraging them to discover novel lines of thought or action. The relationship between positive meaning and positive emotions is considered to be reciprocal. As individuals discover new ideas and actions, they build their physical, socio-emotional and intellectual skills. Our findings show that an enhanced awareness of the breathing pattern had bridged body and mind. Damasio (2003) states that the mental Self must be considered from two perspectives: from introspection and from biology. In combining the results of introspection with a biological perspective, he considers the mental Self to represent the individuality and continuity of a living organism, being a process, not a thing Increased self-awareness had given the patients access to an increased self-understanding and self-assertion, leading to new ways of participating in different contexts. Antonovsky (1996) stresses the importance of participation in activities which are meaningful for the individual. In some cases this can create an opening for the beginning of a major change in life circumstances, consequently leading to a further strengthening of the sense of coherence.

Conclusion

The material reflects the great impact the therapeutic processes in NPMP had on the patients. Their experiences of everyday life situations became more manageable, comprehensible and meaningful when they became more attentive to their own bodies, realizing that breathing as well as other autonomic reactions could express valuable information. The therapists had focused attention on these reactions, helping the patients to become more familiar with their own bodily

reactions. Once they were able to use this knowledge interpersonally, as a guideline for action, their sense of coherence increased. The material also shows the importance of combining bodily treatment with verbal interaction.

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